

## EXECUTIVE SUMMARY

Date Summary Prepared: August 3, 2015

<b>Mine Name:</b> Talons Cove	<b>I.D. Number:</b> M/49/0091
<b>Operator:</b> TM Crushing, LLC	<b>Date Original Notice Received:</b> 2/13/2014
<b>Address:</b> P.O. Box 437 Lehi, Utah 84043	<b>County:</b> Utah
	<b>New/Existing:</b> Status changing from SMO S/49/0081 to LMO M/49/0091
	<b>Mineral Ownership:</b> FEE
<b>Contact Person:</b> Nick Baird	<b>Surface Ownership:</b> FEE
<b>Telephone:</b> 801-766-7611	<b>Lease No.(s):</b> Lease agreement in place with landowners

**Life of Mine:** Not known

**Legal Description:** NE 1/4, Section 17, Township 5 South, Range 1 West

**Mineral(s) to be Mined:** Limestone for gravel

**Acres to be Disturbed:** 332.3 acres

**Present Land Use:** Mining

**Postmining Land Use:** Wildlife and Grazing, with likely possibility that it will be redeveloped into commercial and residential use.

**Variances from Reclamation Standards (Rule R647) Granted:** None.

### Soils and Geology

**Soil Description:** Gravelly loam at depths ranging from 0"- 4" in rock outcrop areas and up to 18" in other areas. Soil was identified as being a poor source for topsoil. The pH is slightly above neutral at 7.4-7.7.

**Special Handling Problems:** Suitable plant growth materials are thin where present. On average, the upper 6" of topsoil will be stockpiled for redistribution on reclaimed areas. Topsoil will be salvaged and stored in stockpiles and seeded for temporary vegetative cover. Signs will be placed on topsoil so they will not be disturbed. Available phosphorus will be increased with an application rate of 10 tons/acre of biosolids during soil redistribution.

**Geology Description:** The area is underlain by the Great Blue Limestone of Upper Mississippian age. Bonneville sand and gravels overlay the limestone in some areas.

### Hydrology



**Ground Water Description:** Effects to groundwater from mining are not anticipated. Shallower groundwater is found to the east of the property. Data indicate that groundwater under the proposed permit area is over 100 feet below the final pit floor elevation.

**Surface Water Description:** There are no surface water bodies within the immediate vicinity of the mine. There is one ephemeral channel that runs along the outside north boundary then cuts across the northeast corner of the disturbed area. A berm will be placed along the perimeter of the disturbed area to provide to protection to the channel. Storm water flowing off the site flows along ditches located along the western boundary of the disturbed area. A storm water retention pond is located at the southern end of the property adjacent to State Road 73. Storm water from the disturbed area would eventually drain to the Jordan River. A separate area of mining known as the Phase II area in the northwest corner of the disturbed area has a different drainage pattern. Water is directed by ditches and berms toward the north-northeast and discharges to a natural sand wash. Drainage continues toward the east and ultimately drains to the Jordan River via existing roads and storm drains.

**Water Monitoring Plan:** The operator has a storm water pollution prevention plan. The plan requires documented quarterly visual examinations of storm water monitoring at outfalls and biennial storm water monitoring beginning in year 2014 on a quarterly basis for water quality parameters, including nitrate, total suspended solids, and pH.

### **Ecology**

**Vegetation Type(s); Dominant Species:** The mine is within a juniper/sagebrush environment with intermixed grasslands. The majority of the grasses are sheep fescue and bluebunch wheatgrass. Collectively, these species represent 80% of the grasses in the permit area. Big sagebrush is also dominant in the permit area and provides feed for mule deer and habitat for a variety of wildlife.

**Percent Surrounding Vegetative Cover:** Vegetation cover is about 64%, mostly of shrubs and grass with sheep fescue being the dominant species. The balance of the ground cover is 8% litter and 27% bare ground and rock.

**Wildlife Concerns:** No threatened or endangered species or critical habitat is located on this site.

**Surface Facilities:** Mine surface structures are minimal and consist of an office trailer, a scale house, and a fuel tank.

### **Mining and Reclamation Plan Summary:**

**During Operations:** Limestone will be blasted and fed to a crusher and screen. Road base material will be removed after the initial screening process then separated from the rest of the feed and sent to a stockpile as one type of product. The remaining rock continues to be broken down to smaller sizes and made into an aggregate product.

There will be approximately 14,262,670 cubic yards of material mined from the site. There is no overburden. The final product—crushed and sized gravel and rock—will be stockpiled in temporary areas until it is hauled off site and delivered to customers. No waste treatment ponds or stockpiles will be generated from mining.



**After Operations:** Roads within the permit area will either be reclaimed or left in place for subsequent use in redevelopment. Roads will be graded to blend in with the surrounding topography. They will be scarified with topsoil and other soil amendments applied to create a final roughened surface. Highwalls will be reclaimed, and there will be no slopes steeper than 2H:1 V after reclamation. No rock product piles will be left on site. All products will be sold or removed from the property. Retention basins will be used during reclamation activities to manage storm water. At final reclamation, the retention basins will be removed and graded to a final grade. No permanent buildings or other structures associated with the mine are to remain on the site.

**Surety**

**Amount:** \$1,800,000

**Form:** Surety Bond

**Renewable Term:** 5-year